The Negative Stigma Associated with Drug Addicted Persons

An Honors Thesis (HONR 499)

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Abstract

For those of us who are set in our ways, we must first seek to understand that we may not grasp everything. Through my life, I have found that the best way to approach any situation or circumstance is to not have pre-conceived notions about more than we can see with the naked eye. Addiction poses a strong negative stigma, because most people see it as a choice. My personal journey through drug addiction counseling has undoubtedly changed the way I empathize with people and has inspired me to instill this transition in others.

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I would like to express my deep appreciation to my father, Joe Main, and sister, Morgan Main, for the endless support as I pursue my passions in life.

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Process Analysis

The completion of my thesis took place in several stages. I underwent a process that allowed me to compile the most relevant information and reflective reasoning that conveyed my purpose to an audience. I started with a general idea, resulting from an influential internship I had in the summer of 2017. I worked at a partial hospitalization and drug rehabilitation facility and encountered a population of people I never knew could make such an impact on my life. I learned about a position opening for a CDCA (chemical dependency counselor assistant) phase I, in which I could interact with the patients, take vitals, administer Breathalyzer tests, perform urine drug screenings, assist with medications, and monitor ongoing drug use. I completed a forty hour online course which certified me as a CDCA phase I for one full year, applied for the position, and got an amazing internship opportunity. As a biology major on a pre-physician assistant track, this internship was in pursuit of my "patient-care hours" for applying to Physician Assistant programs. It was within my first few shifts at work when I realized that this job would bring me much more than I had initially intended, and offered a lot more to me personally than just fulfilling my "patient-care hours."

I was raised in a Catholic, conservative household, with little acceptance or tolerance for immense struggles, straying form the norm, or failure. This attitude has brought me a sense of strong work ethic and passion; however, it did not necessarily prepare me to have an open mindset to the diverse and sometimes struggling world at large. As I embarked on my summer adventure with several misconceptions about drug addicted persons, I can say that I left enlightened with a new empathy I had never felt before. It was then that I knew that the stigma associated with people who struggle from

addiction should be changed and could be addressed with widespread education and increased knowledge of the subject. With a clear understanding that people must take responsibility for their actions and wrong doings, we as a society also need to better understand addiction, what transpires in addicts' life to have them end up where they do, and the true burden they carry every day and the complexities of getting clean. It is so imperative to put ourselves in someone else's mental, biological, and environmental state of life, and then reflect on how we might respond to those same stimuli. This summer, I recognized that this is nearly impossible to do unless we are educated and walk a day in their shoes.

Furthermore, I was also lucky enough to take an abnormal psychology course this past fall, which was perfect timing for my project. It also helped me meet an outstanding professor, Niloufar Assar, who has become a great help to me on this project. Abnormal Psychology studies individuals who are "abnormal" or "atypical" compared to the members of a given society. During this course, we delved into stigmatization which gave us a deeper understanding of it. Our class discussed mental health and the predispositions that may lead a person down a path of addiction. We examined the thoughts, behaviors, and actions of drug-addicted persons, what family or childhood backgrounds may have introduced a pathway to drug addiction, and how difficult it is to rise out of that situation. Then we assessed how these individuals are viewed by society, and why it is so difficult for the societal norm to empathize with drug addicts, let alone tolerate them. It seemed that I had an extraordinary interest in this topic when we began these dialogues, more so than my peers in the class. Perhaps my extreme passion came mainly from my previous work experience, but I could not let it

go. I saw this as a sign to expand my knowledge in this area and to focus more closely on the intricacies of this dilemma.

With the inspiration from my internship along with the influence of my abnormal psychology class, I had a genuine desire to learn more about this area. Therefore, I have assembled a two-part thesis; part one is a compilation of research on drug addiction and the second part is the reflective portion. I was able to work with my Abnormal Psychology professor, Niloufar Assar, to assist me with the research and organizational methods of my paper, and I was accepted into Honors 499, the Senior Honors Project class, with Jason Powell as my advisor to help me with the philosophical and reflection portion of my thesis. They have both provided me with more guidance and more support than I would have expected.

I began my thesis by setting a specific outline to follow. I later recognized that my original outline put a specific limit on my research, and that for my thesis, I was better off considering more information than less. Professor Assar was extremely helpful throughout this process. She directed me to various useful databases, journal articles, and was a great resource for diverse textbook material. After a long, rather intense process, I pinpointed and concentrated on a few main topics of interest that I felt could lower the stigma of drug-addicted persons: addiction as a disease and not a choice, biological risk factors that can contribute to drug addiction, environmental risk factors that can contribute to drug addiction, mental illness as a precursor to drug addiction, and controversial treatments for drug addiction. My goal was to address the biggest misconceptions surrounding the disease and treatment phase of addiction. The idea that judging someone for their current situation is not helping them, is a key point I

stress throughout my thesis. Before the writing process, I identified the crucial points of the research, and then I began to organize my information. After completing this organizational step, I wrote my introduction which I found it was best to write toward the end of my writing process so that I could accurately depict what I covered through the entire paper.

As a part of my ongoing research, thesis formulation, and a continuation for my desire to help those drug-addicted individuals, I completed thirty hours of additional training and received my certification for my CDCA phase II. This allows me to legally continue my work in rehabilitation facilities, expand my areas of influence in that work, and it gives me the option to keep up my certification with additional continuing education every two years. I felt the need to not only inform readers about the importance of lowering the stigma of drug-addicted persons, but also to personally contribute my knowledge and talents to this community. In the follow-up reflection portion of my thesis, I shared my journey through my summer internship of 2017. I also discussed my summer work plans for 2018 in which I will be utilizing my CDCA phase II licensure to work at a new rehabilitation facility as a behavioral therapist.

The process for developing my thesis was a great self-learning and reflective process. I was able to recognize the manner in which I approach large undertakings, and how best to assess what went well and what could be improved. I think it is important to note that being in the Honors 499 class was an enormous benefit. First, it provided an outstanding professor. I could not have asked for a better instructor, advisor or motivator. Jason is a great leader, encouraged all of us to go above and beyond, think differently, and truly made us excited about our specific projects. He offered such

thoughtful insight which added dimensions to my project that I had not considered. The class also provided me with a schedule, and required me to have firm work times in order to stay on track with my project. It also taught me that I find it extremely helpful to have other people holding me accountable for my actions. Structure was a crucial element for me throughout this process. I also truly enjoyed having weekly discussions with my classmates on where they were in the process, how they were feeling, and what obstacles they were facing with their projects. It helped me knowing that a group of us were all in this together, as we supported each other throughout.

The hardest part of the process involved my research method. I designed my outline with a very specific path of research, and came to learn that it was not in sync with my original thoughts. For example, I assumed that drinking contributed to an onset of drug abuse, but in reality research showed that it had no correlation. However, nicotine use did. I outlined my paper based on assumptions I had made before the research process. This caught me off guard and had me doubting myself. Even when I felt that I had a decent handle on my research, I found myself switching back and forth from general to specific, which made my research not as cohesive as I would have liked. It was extremely helpful when I received my first set of feedback from Professor Assar along with a new book recommendation. This information really helped me tie together my research and reflective piece.

The Negative Stigma Surrounding Drug Addicted Persons

I believe that the negative stigma surrounding people who struggle with addiction and/or substance abuse is due to a lack of knowledge regarding the reality, onset, and treatment of this illness. I will justify this by first defining and informing readers about addiction as a disease, I will then undercover several risk factors and predispositions to substance use, and finally I will explore some of the controversial treatment options for drug addicted persons and substance abusers. Throughout this paper, I will address several common fallacies associated with drug addiction in attempt to inform the public about the truth these people face. After the research portion, I will reflect on the steps I have taken to help these people that have impacted me, and my opinion of this topic on a more personal level.

Drug Addiction as a Disease

From an outsider's perspective, addiction can simply look like a lack of will power or motivation. What people need to better understand is that addiction involves physically altering the pathways of the brain (SAHMSA, Walsh). As defined by the Substance Abuse and Mental Health Services Administration (SAHMSA), "a substance use disorder, or a drug use disorder, is characterized by being a mild, moderate, or severe dependence on certain drugs or prescription medications. This transpires as the continual use of a drug produces substantial damage to the user (SAHMSA, Lynsen)." The latest DSM- 5 criteria for a Substance Use Disorder (SUD) is a problematic pattern of use that impairs functioning resulting with two or more of the following symptoms: within a one year period: failure to meet obligations, repeated use in situations where it physically is dangerous, repeated relationship problems, continued use despite

problems caused by the substance, tolerance, withdrawal, substance taken for a longer time in greater amounts than intended, efforts to reduce or control use to not work, much time spent trying to obtain the substance, social hobbies or work activities given up or reduces, and craving to use the substance is strong (Kring 281). A use disorder/dependence can be present without addiction, but, if someone is suffering from addiction, they more likely than not, experience dependence as well (SAHMSA, Walsh).

Dependence, different than addiction, occurs when the brain has rewired itself to a point where the person can only function normally when on that drug. The American Society of Addiction Medicine expresses addiction as a "chronic disease of brain reward, motivation, memory, and related circuitry (SAHMSA, Walsh)." Stedman's medical dictionary terms disease as, "an interruption, cessation, or disorder of body function, system, or organ (Prus 141)." Diseases are known to destructively alter physiological processes in the human body. In a very similar way, drug abuse disrupts neurobiological processes in the brain. This intensifies addictive behaviors, ultimately producing a vicious cycle. As addiction is a definite disease, it must be established how abuse of a certain drug effects a person's well being. Drug abuse causes the brain to exceed natural dopamine levels or alter the activity of the dopamine pathways. Nevertheless, the brain becomes impacted in a manner that alters the way a person thinks about a particular drug (Prus 141). It should be noted that different classifications of drugs affect the normal functions of the brain via slightly altered mechanisms.

Parts of the Brain Affected by Continual Drug Use

Chronic use of a drug eventually alters the way the body responds it. A few key terms involving the psychological and physiological adaptations of a person's body

alongside chronic drug use are tolerance, sensitization, and dependence. Different drugs and the extent to which one uses them, can lead to these various situations. Tolerance, behavioral and pharmlogical, serves a reduction in the body's response to that drug. Meaning, a person must take more and more of the drug to achieve the desired feeling. Sensitization, however, is an increase in the responsiveness to a particular drug after prolonged use. Dependence, as stated before, is the physical and emotional need to use a drug to simply feel "normal." Without the drug, the body will initiate withdrawal (Prus 130).

Addiction is never "cured". It is something people struggle with on a daily basis, and the longer a person uses, the more they can be affected. Recurrent drug use physically alters the pathways of the brain that make the desire of a drug more than just a motivational problem. Under frequent administration of a drug, the amygdala and hypothalamus alter the natural brain processes to that of the drug. This is where dependence transpires (Prus 156). The amygdala is a part of the brain that is largely associated with emotions and memory. It is directly affected by the stimuli received during traumatic or euphoric events. As illicit drug use proceeds, the amygdala communicates these feelings and retentions to the thalamus and prefrontal cortex. These areas are in control of steering sensory information to the cerebral cortex, as well as initiating stimuli and motor responses (Prus 154). The hippocampus is a portion of the brain that links the feelings undergone from the thalamo-cortico-amygdala pathway to an environmental situation. In the context of a drug addict, these desired emotions felt by a certain drug can be directly associated with a part of town, group of people, or even a person's name that connects him or her to that drug (Prus 158).

Frequent Illicit drug use instigates an altered production of sensory inputs and outputs in the brain. When a person stops the use of a drug, the autonomic system becomes disrupted. A person will undergo physical withdrawal symptoms without use of the drug. These can manifest as excessive sweating, low heart rate, nausea and vomiting, heavy breathing, and many more flu like symptoms. As physical withdrawal occurs, the amygdala reduces the activity of dopamine neurons, which ultimately eliminates rewarding effects in general. This puts a person in a state known as anhedonia, which is a psychological form of withdrawal (Prus 156). The dorsolateral prefrontal cortex is the area of the brain that manages impulse control. Recurrent use of illicit drugs damages this portion of the brain, making it more feasible for a drug addict to pursue short immediate gratification instead of healthy long-term satisfaction (Prus 156).

So, how exactly does addiction take its course in the human brain? There are three main stages of addiction: Intoxication, Developmental of Dependence During Chronic Use, and the Pre-occupational and Anticipation stage. Each of the stages affects regions of the brain that make it harder and harder to avoid a particular drug. The Intoxication phase directly connects to the reward pathway in the brain (Prus 157). A highly regarded theory involving the reward pathway is referred to as the *incentive-sensitization theory.* This theory is implemented first in the intoxication phase due to the "liking" of a particular drug. The liking comes from the good feelings activated by the dopamine receptors in the brain that makes you feel good in presence of a particular drug. These intense rewarding effects are enough for the human brain to seek pleasure via the drug over and over (Kring 306). In the stage of Developmental of Dependence During Chronic Use the amygdala has been affected to point of a shifted motivation to

use (Prus 157). Following the *incentive-sensitization theory*, this stage of addiction initiates the "wanting" of a drug. This is different than the liking because at this point, the body now craves the drug (Kring 306). The desire to use becomes a new combination of avoidance of withdrawal symptoms as well as seeking the drugs gratifying effects. In the Pre-occupational and Anticipation stage, or the final phase of addiction, many more areas of the brain play a role. The person has now become completely consumed with pursuing the drug. The hippocampus, the portion of the brain that ascribes significance to received stimuli, becomes prominently involved. At this point, there is now communication between the reward pathway, learning systems, amygdala, and hippocampus. In addition, changes in the prefrontal cortex have affected decision making. Due to the changes in the brain, a person is now hardly able to focus on anything but that drug (Prus 158). Likewise, the *incentive-sensitization theory* states that over longer periods of time, the "liking" for a drug decreases, while the "wanting" increases. This shift can be attributed to the maintenance of addiction (Kring 306).

Common Misconceptions Regarding Addiction

Addiction and substance use disorders are made apparent to the general public as serious health problems, an incapacity to perform normal tasks, and failure to meet key responsibilities at a place of obligation (SAHMSA, Lynsen). There are several substance use disorders prevalent in our society, which include: Tobacco Use disorder, Hallucinogen Use disorder, Opioid use disorder, cannabis use disorder, Alcohol use disorder, and many more (SAHMSA, Walsh). It is important to understand that the decision to take an illicit drug is in the hands of the user, but continual use is in the hands of his or her rewired brain. However, even looking at the initial choice to start

using a drug, we must consider the risk factors involved. Just as a pathogen encompasses certain vulnerabilities to a host, so does addiction (Prus).

It is frequently thought that substance use disorders occur most commonly in older individuals who are prescribed several medications due to frequent health problems. This is usually assumed because these people are used to taking drugs in general. In actuality, this is not the case. Substance use disorder manifests itself in all ages, ethnicities, health scales, and economical classes. SAHMSA indicates, "In 2014, about 21.5 million Americans ages 12 and older (8.1%) were classified with a substance use disorder in the past year. Of those, 2.6 million had problems with both alcohol and drugs, 4.5 million had problems with drugs but not alcohol, and 14.4 million had problems with alcohol only (SAHMSA, Lynsen)."

Correlations Between Drug Abuse and Other Factors

Studies have shown that drug abusers tend to show common personality characteristics that could have been implemented by genetic and/or environmental factors. These features include the inability to control emotions such as rage, shame, jealousy, and anxiety. Other factors include a lack of responsibility, a scarcity of cautiousness, and deficiency of independence. Resistant of authority, narcissistic, resentful, and confusion over sex roles are all tendencies drug users commonly possess. Environmentally, the surroundings of drug users also show correlation regarding peer rejection and parent neglect (Marion and Willard, "Biological and Psychological Reasons for Substance Abuse"). Furthermore, abuse at any capacity can serve as a vulnerability contributor to drug use in general, but severe physical childhood abuse shows an associated risk for earlier onset (Darke and Torok).

In a particular study conducted in Australia, susceptibility to drug abuse was observed. Individuals with less than ten years of education proved to be four times more likely to experience drug abuse. Depression, short temper, and aggressiveness in association to shyness were also found to be significant risk factors. Drug abuse also proved to be more likely in individuals who felt dominated by their friends and were pressured to try drugs by their peers. In contrast to what many people believe, socioeconomic status, cast status, sexual contact and alcohol use in the past month showed a negative relationship to drug abuse. However, nicotine dependence showed a convincing correlation (Niraula). This is most likely due to the fact that the brain has been altered into a dependent state via nicotine, but not necessarily from alcohol in a short time frame. This state of dependence increases the likelihood of drug abuse.

Biological vs. Environmental

Why does one become an alcoholic? How do people get addicted? Is it because their parents are? Or because they grew up around drugs an alcohol their entire life, and that is all they know? The constant question regarding the destructive life path taken by substance abusers is nature versus nurture. Both features possess influences on the user, and need to be better understood by society.

The predispositions to substance use disorders are not solely based on genetic or environmental factors, but rather a combination of both. The extent to which one is abusing drugs also increases with a mixture of these two considerations. Aside from risk factors known to increase likelihood of substance use disorders, drugs also carry addictive underlining properties that are prone to sustain drug use and dependence (Marion and Willard, "Biological and Psychological Reasons for Substance Abuse").

Studies have found that in the earlier stages of substance use, environment plays a larger role than biologic. This is due to the fact that adolescents do not have much freedom to express their genetic characteristics while under common authorities. With less parental monitoring, however, genetic factors have a higher likelihood of manifesting sooner. Moreover, later stages of use are more induced by genetic factors because of the freedom and opportunity that comes with age. Nevertheless, it should be noted that some studies have observed drug abuse in people later in life, even when surrounded with strong environmental values in their youth (Meyers and Dick). This goes to show; drug abuse cannot be attributed to one specific environment.

Biologically, there is no one specific gene that makes someone a drug user. Nonetheless, there are several genes with indirect properties that can combine to increase a vulnerability to certain behaviors and disorders. These genetic predispositions along with specific upbringings can increase the likelihood of substance use disorders (Meyers and Dick). Developmental endophenotypes are biological genetic contributions to a specific person and explain how it can influence behavioral effects and clinical disorders. Asians, for example, have a lower frequency of alcohol problems compared to other ethnicities; this can be attributed to their physiological intolerance. Mutations in genes that code for alcohol dehydrogenase (ADH) are present in about three fourths of Asians, in which their body cannot tolerate excessive amounts of alcohol, which in turn can serve a protection from alcohol dependence (Kring 304). In another case, studies have shown that the heritable endophenotype P3AR serves as a risk factor for adolescents misusing substances (Iacono and Malone). Research has also correlated variations in the CYP2A6 gene, a gene that controls the metabolization

of nicotine, to the likelihood of smoking more (Kring 304). These are just a few uncontrollable genetic factors that, but can contribute to a problem people often see as controllable.

Mental Disorders

Mental disorders have also been proven to be associated with an increased risk of substance abuse. It is important to note that this increased disposition could have partly to do with the shared etiology factors of mental disorders and the onset of drug abuse. Regardless, the combination of behavioral disorders along with previous substance use has proven to be the clearest forecaster for the result of substance use disorder. Some behavioral disorders have conveyed a greater association to drug abuse than others. For example, bipolar disorder, panic disorder, social and specific phobias, posttraumatic stress disorder, and separation anxiety were all strong predictors of some type of substance dependence, while agoraphobia and generalized anxiety disorder showed no association do drug misuse (Swendsen). This could be due to the fact that agoraphobia and generalized anxiety disorder prevent people from facing their fears, while the other disorders are instill a sense of urgency that requires physical action.

Pain, anxiety and depression are common among drug abusers. From a biological standpoint, health problems such as heart disease, diabetes and hypertension can commonly lead to diagnosable mental illness. Whether instigated by the user himself or herself, or a result of accidental physical trauma, health complications can have an indirect impact on substance abuse. With a diagnosis of a

behavioral disorder, the likelihood of substance abuse increases (Jamshid Ahmadi MD , Fatemeh Tabatabaee MD & Zahra Gozin MD).

Uncontrollable traumatizing situations are also known to have serious consequences. For example, studies have shown that life events that cause post-traumatic stress disorder, panic disorder, and high anxiety seem to be specifically disposed to the calming affects of alcohol. This increasing desire for internal peace and serenity, commonly leads to alcoholism. In another study, after controlling for the effects of those who abused substances prior to being assaulted, it was determined that newly assaulted women were more than twice as likely to abuse substances than non-assaulted women (Kilpatrick).

Medicated Assisted Treatment

Medicated assisted treatment (MAT) is the combination of counseling therapies and prescribed medication in pursuit to control an addiction in the healthiest, most beneficial way possible (SAHMSA, Lynsen)." Studies have found that the combination of the right medication and psychotherapy prove to be the most beneficial way of treatment and relapse prevention for drug addiction (SAHMSA, Walsh).

People have numerous misconceptions about Medicated Assisted Treatment for substance abusers. Several argue that introducing these new drugs creates an even higher risk for drug abuse in today's society. Some people feel that to be considered "abstinent from drug use" one must not be taking any controlled substances. These are common misunderstandings that need to be addressed in order to decrease the negative stigma associated with drug users and their road to recovery.

Perhaps, one of the most controversial MAT treatments is that used to treat

Opiate Use Disorder (OUD). Methadone and buprenorphine are the two of the most commonly prescribed detoxification medications for OUD. Some people are against MAT because they argue that these new drugs can be abused and used for more harm than benefit like they are intended for. And, yes methadone and buprenorphine can be misused, like anything else. For those who are not addicted to opioids, these medications can cause euphoric effects. However, most data suggests that the misuse of these drugs occurs in the attempt to control cravings and withdrawal symptoms, not a motive to get high (NIDA "Misconceptions About Maintenance Treatment"). Even Naltrexone, which possesses no euphoric effects at all, can cause controversy. This is because some people, even drug abusers themselves, see reliance on another medication as not necessarily a full recovery or considered "sober living." What must be better understood is the efficacy of these medications while dealing with a life-threatening illness. Several studies show an increase risk for relapse from those who follow their detoxification with abstinence. Although relapse should not be viewed as complete failure on the road to recovery, it can be very dangerous due to the amplified threat of a deadly overdose. This is why Medicated Assisted Treatment plays a crucial role in revering from drug dependence (NIDA, "Efficacy of Medications for Opioid Use Disorder").

Methadone

Methadone (Dolophine) is a commonly use detoxification medication treatment that can be prescribed to addicts that aids in lessening and discontinuing the use of opiate medications (SAHMSA "Methadone"). A common dosage is approximately 60-100 mg daily (Lobmaier). It can be taken in various forms such as liquids, wafers, or

pills (SAHMSA "Methadone"). It is not required of a patient to be detoxified of illicit drugs before methadone treatment. Methadone is considered a full-agonist due to its ability to obtain a maximum response from receptors. For this reason, it is typically given to those who are addicted to excessively high doses of opiates. Methadone works by rewiring the way the human nervous system responds to pain, by blocking the positive effects felt from using an illicit opiate. A patient's willingness to take this medication also stems from methadone's ability to reduce the commonly feared withdrawal symptoms such as nausea, headaches, excessive sweating, and other flu like symptoms (SAHMSA "Methadone"). Methadone, notably, has a higher risk of overdose than buprenorphine, which is why precautions must be set in place (NIDA "Misconceptions About Maintenance Treatment").

To begin legal treatment with methadone the drug must be administered under the control of a physician and distributed through an Opioid Treatment Program (OPT). Methadone can be retrieved in public or private clinics, and based on insurance, with or without an out of pocket payment. Different clinics, offices, and treatment facilities vary slightly in their protocol and from patient to patient regarding the maintenance of methadone (SAHMSA "Methadone"). The first visit typically entails a screening in which patients are asked about previous drug use, medical history, and are possibly given drug tests. The goals and guidelines of the methadone clinic are also explained. Methadone treatment should be specifically dosed for each patient's needs, and generally accompanied by weekly counseling and group therapy (SAHMSA "Methadone"). Due to the negative stigma associated with methadone clinics, as the patient shows stable compliance and efficient outcomes with the medication, physicians

may allow the patient to self-administer the drug at home between frequent visits (Miller). Treatment with the use of methadone varies in length but typically last anywhere from 1 to several years. As treatment comes to an end, the patient must be slowly weaned off due to its addictive effects (SAHMSA "Methadone").

Methadone clinics generally have a negative sigma associated with them from both drug and non-drug users. People tend to consider it "illicit substance replacement." This is why several drug addicts, or family members of drug addicts either avoid or are extremely secretive about this type of treatment. Moreover, methadone clinics tend to be few and far between, residing in unfavorable locations. Aside from the factual benefits of this medication, the general public seems to be more focused on the negative connotations of the drug (Miller).

Buprenorphine

Buprenorphine is a medication that was approved for clinical use in 2002, and with the combination of naloxone, possesses a significantly decreased risk for misuse. (Lobmaier). While it lessens the physical effects of opioid craving and withdrawal symptoms, it also contains pharmacological properties that strengthen safety against overdose (SAHMSA, "Buprenophine"). When compared to a placebo, buprenorphine is found effective when given in medium to high dosages. A ceiling effect is achieved is buprenorphine at around 16 to 20 mg (Lobmaier).

The access to this medication is also much greater than others. Buprenorphine is the first medication used to treat opioid dependency that can be prescribed and taken in a non-structured environment. So, for example, if methadone clinics are not readily available or desired by a patient, buprenorphine can serve a good alternative. Like most

other Medicated Assisted Treatments, buprenorphine is advised to be taken along with counseling and support groups (SAHMSA, "Buprenorphine").

A common issue with medication prescribed to treat drug addiction is the high risk for misuse. Like methadone, buprenorphine, by itself, can be abused, especially if injected. So, in recent years buprenorphine has been combined with the drug naloxone in a sublingual tablet to avoid the misuse. When taken sublingually, naloxone is not effective, but when injected, it eliminates the desired euphoric effects by drug users. This is why less supervision is needed when prescribed a buprenorphine-naloxone medication (Lobmaier). This decreased risk of misuse increases the likelihood of competency with the drug by the patient. Although buprenorphine has a lessened risk of maltreatment compared to other medicated treatments for opioid dependency, there is a definite risk for those who do not have an opioid dependence problem, because the drug does contain addictive properties (SAHMSA "Buprenorphine").

Buprenorphine is considered a partial opioid agonist because it does not give the patient a "high" but does provide them with limited euphoric effects that can only be noticed as reduction of withdrawal symptoms (NIDA "Misconceptions About Maintenance Treatment"). Buprenorphine binds to the opioid receptors, with a slow dissociation. This means that if the medication is taken before any other opioid receptor-binding drug, the patient will not be able to feel the effects of that drug. This is why buprenorphine provides a lower risk of overdosing from other opioids. However, if other opioids are taken before buprenorphine, buprenorphine can induce withdrawal (Lobmaier).

Buprenorphine medication assisted treatment occurs in three phases. The first phase is called the induction phase, and this is where the medication can be taken only when a patient has been undergoing withdrawal fro 12 to 24 hours. It is very important to not give a patient a medication containing buprenorphine if opioids are still in their system because this can increase withdrawal symptoms even more (SAHMSA "Buprenorphine") The second phase is termed, the stabilization phase. This is when a patient has significantly reduced his or her use of an illicit opioid, no longer has cravings for the drug, and possesses minimal side effects. At this point, the dosage of the buprenorphine-containing drug may be tailored to the needs of the patient (SAHMSA "Buprenorphine"). The final phase is called the maintenance phase, and this is where a patient may stay forever, or could be placed into a medically supervised withdrawal. Withdrawal from buprenorphine is far less intense than that from an illicit opiate, but will, nevertheless need to be monitored (SAHMSA, Buprenorphine).

Naltrexone

Naltrexone is an opioid antagonist, meaning it blocks the opioid receptors in the brain without causing tolerance or withdrawal (NIDA, "How Do Medications to Treat Opioid Addiction Work?"). Like naloxone, naltrexone does have the capacity to reverse the side effects from an opioid overdose (Marion and Willard "Naltrexone"). Naltrexone not only decreases cravings associated with prior drug use, but also works to eliminate and reverse euphoric effects felt by drugs in general. So, if one were to use illicit drugs on this medication, they would not feel the desired effects. This makes the medication extremely useful for recovering addicts facing the temptations to relapse (Raber and Wienclaw). The downside to this particular form of treatment therapy is that when it is

administered orally for opioid addiction, it is not well tolerated by most patients. Therefore, Naltrexone's effectiveness is debatable in its original pill form. However, in 2010, Vivitrol, an injectable form of naltrexone commonly used to treat alcohol use disorder, was FDA approved to help treat opioid addiction (NIDA, "How Do Medications to Treat Opioid Addiction Work?").

It should be noted that Naltrexone is not a withdrawal management medication like buprenorphine and methadone. It cannot be given to current opioid dependent users. Vivitrol, specifically, is ideal for patients who have low access to medical care because the shot can sustain lasting effects for weeks (NIDA, "How Do Medications to Treat Opioid Addiction Work?"). Hence, a key factor regarding the success of naltrexone is the patient's compliance to take it.

Concluding Thoughts

It had been thought for several years that addiction expressed itself in selfish, pleasure-seeking, and merely just bad people, as opposed to mentally and physically suffering beings. After recent years of research and studies, addiction has been classified as chronic and progressive disease of the brain (O'Leary). As a society, we must seek to learn and understand more about the subjects we choose to judge. A simple lack of knowledge can be the root of evil in our world today. Drug addiction is a hard concept for people to fully grasp, especially when they do not understand the entire process. In no way should people be excused for their wrongful thoughts, actions, or behaviors while suffering from addiction, but, to fully blame and think poorly of them for their problem is not right either. Addiction is the true culprit, and instead of associating drug users with ignorance and disgrace to society, we must seek to find an

empathetic side of ourselves to want to help. Given the same background, genetic susceptibility, and environmental interactions, anyone could suffer from drug abuse. We happen to be the lucky ones, and it is essential to see it that way. We must not view anyone as less than ourselves, as that is what creates a great divide in our culture.

Personal Impact

My research fits into the larger cultural realm because there is a serious lack of empathy for those struggling with mental disorders and addiction. As member of society, I believe it is important to not only inform anyone who has preconceived notions about addiction or mental disorders, but to personally help those struggling every day to fight addiction. As I constantly work to relieve some of the judgment and induce compassion on these struggling individuals, I know I need to touch these people's live personally. In the summer of 2017, I earned my CDCA phase I licensure and was able to work at a partial hospitalization drug and alcohol recovery facility called Genesis life and recovery, in Hamilton Ohio. There, I assessed patients using Clinical Opiate Withdrawal scales (COWS) and Clinical Institute Withdrawal Assessment for Alcohol (CIWA). They were each given a number after hourly assessments and the doctor used this information to know when it was time to prescribe them medication. I had several intake duties that required me to assess patients over the phone in order to confirm that Genesis was the right place for them. I also administered drug urine screens and took vitals on a daily basis. Furthermore, I was able to sit in on group counseling sessions and help manage medications. This is where I really got to know the patients on a more personal level.

Acquiring my CDCA phase I helped me to better understanding addiction as disease, and not as a choice. It is something that takes over someone's body in pursuit of eliminating pain. It was common that most of these people had criminal records, not from physically harming others, but from theft, possession and use of drugs, and other violations. As an employee at a rehabilitation facility, I learned quickly the importance of seeing behind the lying, manipulative persona, and recognize that is not necessarily who they were as a person, it was their addiction. However, it was our job to recognize this in order to help them become productive additions to society.

Before my internship at Genesis life and recovery, I placed much more blame on the drug abusers themselves for their current situation. It was fascinating for me to see the patterns of people who graduated compared to the ones who left voluntarily, and versus the ones dismissed by the facility. Commonly, successful ones were those who placed themselves in the program, as opposed to having an outside instigator such as friends, family members or legal enforcement. So, if these people have the willpower to place themselves in treatment, then why does everyone not simply do it? This only intensified my thoughts of attributing the cause of abuse to the person. It was only when I learned more about the background of these individuals that I began to express more understanding towards their situation.

I worked with men from the ages of 18 to 50 who were more likely than not abused, neglected, and surrounded with drugs their entire lives. However, I also encountered patients, who came from financially stable families. Most of these people grew up with a single parent or grandparent. A decent number came from great family

backgrounds, had a surgery, immediately became addicted to painkillers, and lost everything. Seeing this on a daily basis, really impacts a person's level of empathy. I cannot say for certain that if I had grown up or underwent some of their same circumstances that I would not have also turned out like them. This is not to say that these people should not take responsibility for their actions, but it is important to understand of this struggle, was not their fault. The summer of 2017 was so incredibly impactful on me; I knew I could not stop there.

I have completed the steps to receive my CDCA Phase II licensure. As my phase I licensure expires in one year, phase II will allow me to sustain my position as a CDCA with two-year follow up examinations. With this, I have received another summer internship position at a different drug rehab facility in West Chester, Ohio called "Lumiere Healing Center." This is an in-patient facility that supports men and women through their drug-related illness by encompassing several aspects of treatment. This facility provides a safe place to live, around the clock healthcare, group and independent counseling, and medication- based treatments. I will be filling the role of a behavior therapist, where I help drug-addicted persons seek healthier behaviors in terms of their drug use. To assist these patients into being productive members of society, detoxification and medicated assisted treatment are just the first steps on the road to recovery. As discussed earlier, their brains have been permanently impacted by drug use, and an immediate fix of a drug is desired every day. Recovering drug-addicted individuals must acquire the physical and mental strength to avoid drug associated persons and environments. The passion I have for this type of work has arisen genuinely through my experiences and practices. As my college education has

prepared me for a future career as a physician assistant, my impactful experiences surrounding the constant battle of drug abuse have instilled a greater sense of compassion as a hands-on caregiver.

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